PROFITABLE INSTITUTE

Representative Shiawassee County Farmers Present-Many Practical Papers and Addresses-The Visitors Delighted with Owosso's Hospitality.

The County Farmers' Institute held at the Congregational Church in this city on Tuesday and Wednesday of this week was an unusuall successful affair-however, it was not better than similar gatherings are when held in Owosso. The attendance throughout was large, representative farmers and their wives from nearly every township being pres-

The first session was opened with prayer by Rev. C. V. Northrop. J. N. MeBride, president of the Institute, welcomed those present, and Hon. Wm. Ball, of Hamburg, conductor, outlined the work of the gathering.

Mr. McBride then introduced T. B. Terry, of Hudson, Ohio, who proceeded to deliver a very interesting talk on "Increasing Fertility of Clover Grow ing." Mr. Terry has a good voice, and was very clear and simple in his language. He incidentally made a strong argument for a university education. He said his subject must be one of growing importance. It was more so in the East, but is coming to the front as far west as Michigan. The question was how to increase the fertility of the soil and raise big crops. To do this they him. Mr. Terry advised him to either must have three elements, nitrogen, phosphorie acid aud potash. If any vegetable matter was burned, these by right methods. Adopting the system three things were present. The nitrogen was released and went into the air, and the ashes contained the phosphoric acid and potash. The air was the great storehouse of free nitrogen. It contained 80 per cent. This most costly of all elements cost in the east when bought in phosphates twenty cents a pound. There was over a million dollars worth of nitrogen over many a farm. God had provided a cheap way of securing it for the farm. The clover plant would do this. They could accumulate 200 to 300 pounds of nitrogen per acre by leaving the clover on the land for the use of future crops. They could not eat grass, but a steer could, and then they could eat the steer and so they would get it. Many years the question, what clover would do for the land, was disputed, but today it was proven. By a systematic rotation of crops clover once in three or five years would get all the nitrogen the auditorium had to be used to accommonded the large crowd in attendance. get all the nitrogen for less than nothing. Under the heading of Economic Stock roots still running down. If a plant was dug up they would find that the under favorable conditions. The looser the sub soil, the deeper the roots go. On hard pan roots went down 3 to 4

mineral matter. After growing clover the mineral matter from below was brought up to the surface. Another way in which clover is helping the fertility of the soil is by mulching and shading the land. To prove this lay a board down in a garden and after a time take it up and sow seed on the spot and see the increased fertility. They might say this was all right in theory, but not in practice. He had heard farmers make such remarks.

feet. The roots went down to raise up

Mr. Terry then went on and gave a very interesting account of how he and his wife commencing on a rundown farm of 135 acres, for which they ran \$3,700 in debt, and eventually had 55 acres all clear, from which in '83 they sold \$2,300 worth of wheat and potatoes besides their hving. He told of his struggles and how clover brought up the land. His father had given him a university education which was worth more than it cost because he had learned to think. He had been getting \$1,000 a year salary from a butter king, and the first year's sale he made from the products of his land was \$300. This tempted him to go back to his situation, but he and his wife determined to stick it out. It was not clover that alone helped him to bring up his farm, but he saved all the manure on the farm and did much needed under drain age. He had no money so he did it with his own hand, working often when other farmers said the weather was so bad they could not be out. Now he was cutting four tons of clover an acre. Two and a half tons the first cutting and one and a half the second cutting. He saved money by feeding early cut clover hay to his horses. People said it was better By feeding clover hay much grain was saved. Every one must know that these but in 25 years steady work, year after

Mr. Frank Sheldon of Shiawassee township made some plausible remarks in discussing the address of Mr. Terry.

He thought the farmers of this county had as good soil for farming and sheep raising as any part of the earth. The speaker knew the value of clover as a fertilizer from experience, and has raised grand crops from the lands seeded to clover. Had raised 50 bushels of wheat to the acre from the use of clover, and realized over \$4300 from the raising and feeding of about 600 sheep. Mr. Sheldon thought we were behind some other countries in our knowledge of farming, and this should not be so. We must raise clover and not weeds. Too large crops of weeds are raised by the farmers of this country. We must fit the land well for the growth of clover, as carefully as we fit the ground for the growth of

onions. Mow the clover two years and

pasture it one is a good rule to follow.

Mr. Terry was at this time subjected to a fire of questions taken from the question box. He stated that the subsoil of his 35 acres on which such great things had been accomplished was heavy clay. The value of clover as a fertilizer on any land would equal \$50 an acre of ordinary fertilizers. In answer to a question as to audience. whether he was a notable exception as a farmer in his part of the country, Mr. Terry said no, there were many farmers who were succeeding as well who pursu ed the same methods of farming. He subject. had in mind one man who was a school teacher, because his farm would not keep be one or the other, and he better in this case be a farmer and farm his land of clover fertilizing his farm is now high ly productive and needs to teach no more

Mr. Terry denied that institute work or writing for the papers had made him well off instead of farming.

Sow seed early, about last of February or first of March, according to location. Plants are not injured by frost when it is sowed early enough, although this may occur on poor land, because clover does not feed on the surface soil as does timothy. Therefore clover is the best for the other crops. After getting your clover housed close the doors at night and cover with straw. Do not crop too continuously with even clover.

AFTERNOON SESSION.

The after dinner session of the institute opened promptly on time, and the interest manifested in the morning session was well kept up by the character of the papers and discussions of the same. The annex to

If they plowed heavy grass sod they Feeding, Mr. C. H. H. Payne read a good would find the soil all hung together. If paper on cattle feeding. After an experithey ever plowed over red clover sod ence of seven years he had found corn ensithey would find the soil crumbled, be- lage to produce good results in cattle feedcause the clover had no fibrous side roots, ing. If properly fed with a little clovr hay crop, 200 bu. to the acre, have raised 325 but a tap root right down with fibrous all kinds of stock may be kept through the to the acre. winter in good condition. On some farms the stock are not well wintered. Chewing roots went down not fifteen dry corn stalks on a cold, windy, wintery inches, but 3 and 5 feet, and even 8 feet day, by hungry, exposed cattle is a mistake farmers too often make. Cattle must be well cared for and well fed to get good results.

First, provide good shelter against exposure to the elements. Then good feed. Mr. Bailey, of Venice, gave some well digested statistics on the feeding of sheep. Middlings and oats found by experience to be not the best feed for making mutton. In a particular case of a flock of Shropshire sheep that was not doing well the owner found that feeding oats and corn with a quantity of hay produced the best of results.

The lambs being kept in different pens, coording to conditions. Increasing the relative quantity of corn, found by experience to produce 1 pound of mutton out of 3 pounds of grain and 4 pounds of hay. Feeding the flock for the past 75 days has produced an average gain of nearly onehalf pound a day in the flock, which is most

In feeding lambs for mutton much depends upon the care and proportion of the grains. In this particular case the grains were in equal proportion to produce the best result. The lambs when sold netted a gain of about \$1.00 each.

Mr. Bailey sought to point out the discrepancies in the published experiments at the Agricultural College, comparing these reports with actual experience in his neighborhood.

In a discussion of the subject of sheep feeding Mr. Ball undertook to harmonize the statements of Mr. Balley and the published statements of the Agricultural College, by the suggestion that Mr. Balley raised sheep solely for money, and the college experiments were based upon the producing of better breeds ..

J. W. Hibbard, of Bennington, in the absence of the speaker, was assigned to discuss the subject of feeding hogs. Mr. Hibbard in a somewhat humorous manner proceeded to discuss this subject. He considered the subject as of more importance than either cattle feeding or sheep feeding. Betto feed timothy but this was not true. ter results so far as a money return is concerned is gotten from the raising of hogs. Hogs should not be too closely confined results were not brought about in a day while feeding. They should have exercise, especially when being fed corn and hearty

should gain every day. The sooner you get upon the nitrogen of the air much as does hem to the market the more money there is

in favor of silage for economical purposes. Mr. Reynolds was in harmony with the opinion of Messrs. Terry and Cook.

Mr. Ball thought that the real value of the sile was the grain it contained. This statement brought out some discussion, and the claim was made that the ensilage was made better by the mixture of corn and stalks. Jas. N. McBride believed in the silo results, and would put in grain and stalks. The result in favor of silo product over roots was 21/2 to 1.

J. W. Hibbard, while not actually opposed to the silo, did not believe it necessary to good farming.

O. H. Owen, of Venice, claimed that the sile was not good in dairy farming.

Mr. Whalen said he believed in the sale

and had never known any one who owned one to consider it an elephant on his hands. Other discussions followed and Mr. Terry was kept on the carpet a good deal to answer pertinent questions, and his answer

E. E. Bunting upon the subject of potato culture gave a practical and at the same time an interesting talk upon the

Preparing the soil for the culture of the potato is very important. Then the seed should be new and carefully chosen, not smaller than a hen's egg, clear nice seed, not scabby, as there are sure to be it under. a parasite in these potatoes, and they are not fit for seed.

With well prepared ground and carespeaker had raised over one hundred said: bushel to the acre, while his son got only about 50 bushels and the lots adjoined. Two eyes in a piece and two pieces in a hill is the way potatoes should be planted. I prepared my seed sometimes a week before planting, just after the full of the moon in May I plant early potatoes and late potatoes in June. The speaker here suggested that he was not a moon man, however.

In the discussion of the subject Mr-Byam believed in hand planting, in well prepried sandy soil, with well selected seed. Drag the ground over after planting twice, and as small potatoes show above ground cultivate thoroughly and trtoes in pits on high ground. A good nence and influence.

suits the soil hereabouts. INCREASING FERTILITY BY TILLAGE.

Mr. Terry here took up the discussion of the subject "Increasing fertility of the soil." This will be accomplished partly by plowing, rolling and harrowing, constantly keeping the ground stirred up.

Again when preparing for seeding or planting "rough stirring" should be done. We have used tools which were of lighter draft, because of the least worry to us and teams, but this is not best for the productiveness of the former. The ground should be thrown np and stirred effectually. Cultivating with spiked tooth harrow and cultivator and rough tilling and deep plowing have produced wonderful results. The doctrine has been that you must put back in the farm as much as you take off. This is no longer considered a fact. The soil holds stored a vast amount of plant food and we must get it out by tillage. "Keep the cultivator teeth hot" is the way the speaker advised as the thing for making the soil produce. In two or three years the soil will show the good effects of increased tillage.

The old fashioned "summer follow" was a good thing in its time. Tillage made the crop good. But this is now no onger practiced by good farmers. I prefer plowing in spring time and growing a crop of potatoes in the place of the idle condition of the "summer follow," We must keep the land busy if we get the best results. Keep the producing ingredients of the soil near the surface, by good tillage and clover growing.

Gradually plow deeper and thus deepen the soil producing quality. But in a light sandy and gravelly soil with a sandy subsoil perhaps this deep plowing will not do. There should be a clay subsoil. Acting upon these principles of tillage

we have increased the productions of our soils very much. By liberating the productiveness of the soil.

BEAN CULTURE.

the market is the way to feed hogs. They exhaustive tothe soil. That beans thrived the fact that we do not all think alike, and clover. Do not cultivate beans while the dew is on. Cultivate beans before they Answering a question Mr. Terry thought blossom as much as possible. Weeds school system; and the superintendent of silage food was the best for dairy farming, should be kept out of the bean crop, although roots were food. E. J. Cook was stack beans in small stacks out of doors. Bean pods are very valuable for feeding tock, particularly sheep. Once a day feeding of this food is enough for sheep anyway. Wheat should not be sowed upon bean grounds without thorough preparation of the soil to liberate the plant food in the soil. Carefully select bean seed just as other seeds are selected. The lands best adopted are sandy loams. Plant from the 5th to the 15th of June. Weeders are no good in clay soils but may be on sandy soils.

Again quizzed, Mr. Terry answered a question by saying harrow plowing is the best. Solid manure and liquid mixed together bring the best results. My education in Greek and Latin has enabled me to think and act intelligently. It has developed my ability to act along economical lines in farming pursuits and to apply best methods to conditions. I study the markets and condition of the likewise. elicited much interest on the part of the growing crops and take advantage of the conditions. I have made more sitting on the fence in an afternoon than by working. This by managing instead of actually working. I would recommend parents to send their sons to an agricultural college nowadays. It is a mistake not to had no apologies to make, and was fully get this education in these times.

It is good farming to raise clover seed. Do not plow clover under green. Crop him. Bro. E. O. Dewey first called my atit first and then in following season turn tention to the fact that I was on the pro-

EVENING SESSION.

The evening session was opened by J. J. Whelan, of Shiawassee township, who spoke fully chosen seed you are insured of a on "Needed Reform in Public Affairs." He good product, and then a ready sale of covered much ground and touched on many the product. In comparison with a crop things and people, and gave utterance to raised by the speaker's son, who did not some truths. Mr. Whelan has a good voice so well prepare and select his seed, the and delivery and was well understood. He

"I well know that popular opinion is a mighty force, whether used either in the right or wrong direction. The history of the past is replate with instances where popular opinion has lauded one to the skies, when in justice he should have been buried in ignomy, and vice versa. The history of the past shows that popular opinion has been used as often in the wrong direction as public opinion is not a safe force to be governed by, nor a safe rule to measure by, for it is 'as often to lead astray as to guide you dwell upon it for a moment. Did you ever ask yourselves, what is public opinion? To keep weeds out. Dry weather never those who have never given the subject any kills a crop of potatoes. Keep cultivating. thought, I would say, public opinion is an for family supplies, got museorado sugar After a rain stir up the ground and not impression laid in the minds of the masses and black strap molasse without glucose, let it harden. Mr. Byem now has his po- by a certain few holding positions of promi-

Plant 2 inches deep, don't get them too | you can trace the origin of your spring bon deep. Two pieces in a hill is best for net or your new style of shoes. The social seed, no difference in using a whole -od] and moral, the educational and political intato or piece. Healthy vines make the stitutions of our land can be traced to that best seed. The Rural New Yorker best same certain few who have delegated to themselves authority to cast the die, to set the spangle, to run the edict. to mould the opinion, and the masses follow them, never asking, 'is it consistent with my knowledge of things.' They accept whatever is offered as law and gospel.

My idea of reform in its broad source, is that the old must ever give way to the new. There is a reform, or transformation, going on in every form of life. When at the age of 18 or 20 an impression was laid in my mind that he who critized the public institutions of our country or offered suggestions or changes in their management was a crank. I got this impression because I had heard some one say so. And for some years when I heard people criticise the men or stamped them at once as cranks, unworthy of serious consideration. But time has had its ripening influence, and has brought its experiences, which have forced me to the conviction that it was the cranks in the past that have ever kept the march of human progress in its way, and to them we are indebted largely for what we are today."

The speaker reviewed the way of electing delegates to the county conventions He was very severe on politicians and on the way they schemed. But he laid the whole blame on the people for not attending the primaries or caucuses. If they wanted to make reforms, there it was that they should commence. He favored the election of senstors directly by the people. He thought the people did not sufficiently study their own county finances and what went to make up their taxes. He thought the present 3ystem of litigation was a relic of barbarisim. He said he was an enthusiast on education, but he did not believe in doing so much for higher education. His observation of Ann Arbor was that the students there were mostly sons of opulent parents. Higher intellectual education was expensive and could not be enjoyed by many. He ridiculed the idea that a man must vote for an-

other simply because he was on his ticket. N. K. Petter led the discussion on "Reform in public affairs and how to bring Upon this subject the conductor of them about." He spoke of the trials of his of the institute the Hon. Wm. Ball. early life. The speaker was not billious

was glad we do not. We are in a pretty good condition considering all things. We need not-complain very much about our public instructions is a pretty good fellow and is doing pretty good work. "But if he has gone off on the unit system, I would like rake him down from Dan to Bersheba," said Mr. Potter.

Intemperance in the use of liquors and cigars was not countenanced by the spaaker, he would do away with both. Reform public affairs through these churches.

A man who will use profane language should not be elected to any office, nor one who smokes. As to games 1 do not so much object to them. Rather like to have my game roosters come together some time. But as H. W. Beecher says, the injury caused by games is in the abuse rather than

Prize system of merchants was denounced by the speaker as objectionable games.

If I were the whole legislature of the State it would not cost any more than now. I would wipe out all the justices of the peace in the land. Pay the justice la salary if he must exist, and other officials

WHAT NOT TO EAT.

"What I Am Trying to Prevent You from Eating," was the suggestive title of a paper by Geo. H. Haskell, deputy State food inspector. The speaker started in in his characteristic style, by stating that he prepared to meet the expectations of those, at least, who did not expect much from gram to talk about the food question. I first thought I would not attempt it under any consideration, but on second sthought way. Perhaps the most direct and soundfound two good reasons why 1 should not decline the invitation. One is, having attended Barnum & Bailey's, Mat Wixom's and other great shows, I dislike to see anything advertised on the bills that is not inside the tent. Also, I heard the story of the old farmer who, when feeding his cows buckwheat straw, was asked if it was good feed. He replied it wasnt' worth a cent for fodder, but he used it to fill up.

George assured the honest farmers he was one of them, his father clearing up a place. He walked a mile and a half to the best man. school, did chores, and took regular exercise in the gymnasium, which differs from the Y. M. C. A. gym. It consisted princithe right. The logical conclusion is that pally of a large pile of wood hauled to the the house sled length, and enjoyed the ex- Mr. Whelan replying said the large percenthilarity exercise of separating it into chunks 18 inches long. One winter I cut four toes in the proper way.' As popular opinion off my cousin's foot, and felt so badly plays a great part in the affairs of man, I about it I told my father I guessed I wouldn't cut any more wood. The speaker went back, in memory, to

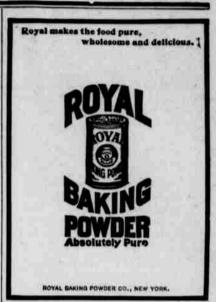
the days he went to the store on horseback old governent Java coffee, in the kernel, to public opinion? You can do so as easily as pestel, or pounded in a rag with a hammer, character. foreign substances, then practically unknown. But of later late years some venders of food products have so far departed from those good old puritanical customs that it almost seems they all present at the institute. have no more regard for their ancestors than a chicken hatched in an incubator. The adulteration of food has grown from bad to worse-from the manufacture of ground pepper from buckwheat bran and olive stones to "pure mustard" made from mustard hulls, potato starch and tumeric. And so we might numerate down the line to a few of us honest farmers who put cobble stones in our wool, until it seemed necessary to provide some means of protection, and a law was passed making it a criminal offense to adulterate anything that was to be sold as food or drink. The law provides for the appointment of dairy and food commissioners, whose duties it is not only to inmen or methods of our public institutions, I spect dairies, but to visit farmers where milk is produced, ascertain condition of whose liver was out of order. He took to cows, their food, water supply, stable and general surroundings.

Mr. Haskell is assigned the inspection of grocery stocks, and inquires the class of goods sold and where manufactured. Whenever an adulterad article is found a sample is sent to the state chemist for analysis. An analysis of some articles was made, interpersed with some of the commissioner's criticisms, which won the hearts of

the audience. Through the efforts of the pure food commissioner, adulteration has decreased from 15 to 25 per cent. A national association of state dairy and food departments met in Detroit last August to bring about a uni formity in rulings and a law whereby manufacturers of adulterated foods outside the state can be reached. The value of the department to the public in genral was shown, and the speaker closed by saying: "If the farmer's hog is obliged to compete with cotton seed oil in imitation of lard, it's time to squeal; and if the cow is to compete with the hog, the steer and cotton seed oil, no matter how gentle her disposition, the chances are she'll turn out a kicker."

WEDNESDAY MORNING.

The session of the institute continued upon Wednesday lost nothing in interest and attendance, although the roads leading into the city were not in the best of condition on account of the thaw. A marked food. Push the feeding from birth up to Thought bean culture was not necessarily nor in a complaining mood. He recognized feeling of sociability and kindly interest pre-



wives and the people of the city. This is the most commendable and is no small factor in the good results obtained by holding these meetings. The people of the country and of the towns should be drawn close together. Their business interests are mutual. Their social interests should be more so. Both may profit by coming into contact with each other. There should be no reason for the apparent distinction.

The morning session opened with a question box. To the question, "Is not a man occasionally placed in a frame of mind which renders a slight use of profanity not only excusable but absolutely necessary." Mr. Potter replied emphatically that no such condition of mind should exist. Opinions of several lawyers were given, upon reduest, as to the right to obstruct the highest opinion was given by Mr. Potter, who is not a lawyer at all.

Upon the question as to whether the unit system would be advisable, Mr. Bristol said some schools would be better for it, especially where they are small, and lacking in interest. He did not endorse or condemn the system as a system.

"Should farmers elect lawyers to the legislature to make our laws." O. C. Moore thought this all right if the lawyer would only be honest. E. J. Cook would elect

What percent of the students at the U. of M. are self supporting? Mr. Ball thought there were many in attendance at that institution who are paying their expenses. age of students were the children of opulent parents, and thought any young man or woman who had it in him or her could get an education in our State by proper effort. Mr. Ball thought likewise and spoke highly of the district school. All are on terms of equality before the law.

A. L. Chandler spoke somewhat at length along same lines condemning the idea of teaching half ideas; of trying to be roasted at home in the dripping pan, make an institution of learning serve the Did you ever try to trace the source of ground in the school district motor with a purpose of several whose work is of special

Miss Helen Duff favored the audience with a selection of music well calculated to show the capacity of the organ which up to this time had been a silent object of interest to

Mr. Whelan expressed himself as not opposed to the University.

"Fruit on the Farm,"-J. H. Vandevort, of Hudson, Mich., a practical man, said: Money is not entirely all the consideration in farming. There should be some pleasure also. The speaker suggested that his discussion was not so much along the line of growing fruit for the market as for home use. The pleasure of having fresh fruit. especially berries, for home consumption is inestimable. Besides the benefit to health in the use of fresh fruits, could advise more use of fruits and less of meats, especially pork, for family use. Children, especially, thrive upon berries. It is a healthy diet for them. He knew a man berry growing and now enjoys the best of health, preaches Sundays and fishes week days, and is a very successful angler.

We do not pay enough attention to our orchards. More care should be taken of them. But berries-strawberries, raspberries and the like are my especial care. Select ground away from the garden so that they may be well tilled. In setting the plants be careful to get them well planted, upright and moist at the roots. Use a garden rake in cultivating strawberries, and cultivate at least 20 times between planting and October. This may seem a preposterous statement, but if you would have good results you must cultivate. Almost any kind of soil will grow strawberries. But choose high ground to avoid frost. Don't choose weedy or sod ground because of the white grub which infests this ground. Use ashes on your strawberry grounds. It is not so easy for me to raise raspberries and blackberries as strawberries. Select a place away from the garden, mark both ways and cultivate both ways with a furrow. Plow in the fall if the ground is not clay; if the ground is clay soil, plow in the

Black caps planted in fall on corn ground is the best plan. When plants are a foot high pinch off the top, but not after. Cultivate continually and thoroughly ..

The people of Owosso who have plum (Continued on page 8.)